

# **Brazos Island Harbor**

## **(Brownsville Ship Channel)**

### **Channel Improvement Project**

## **Feasibility Study**

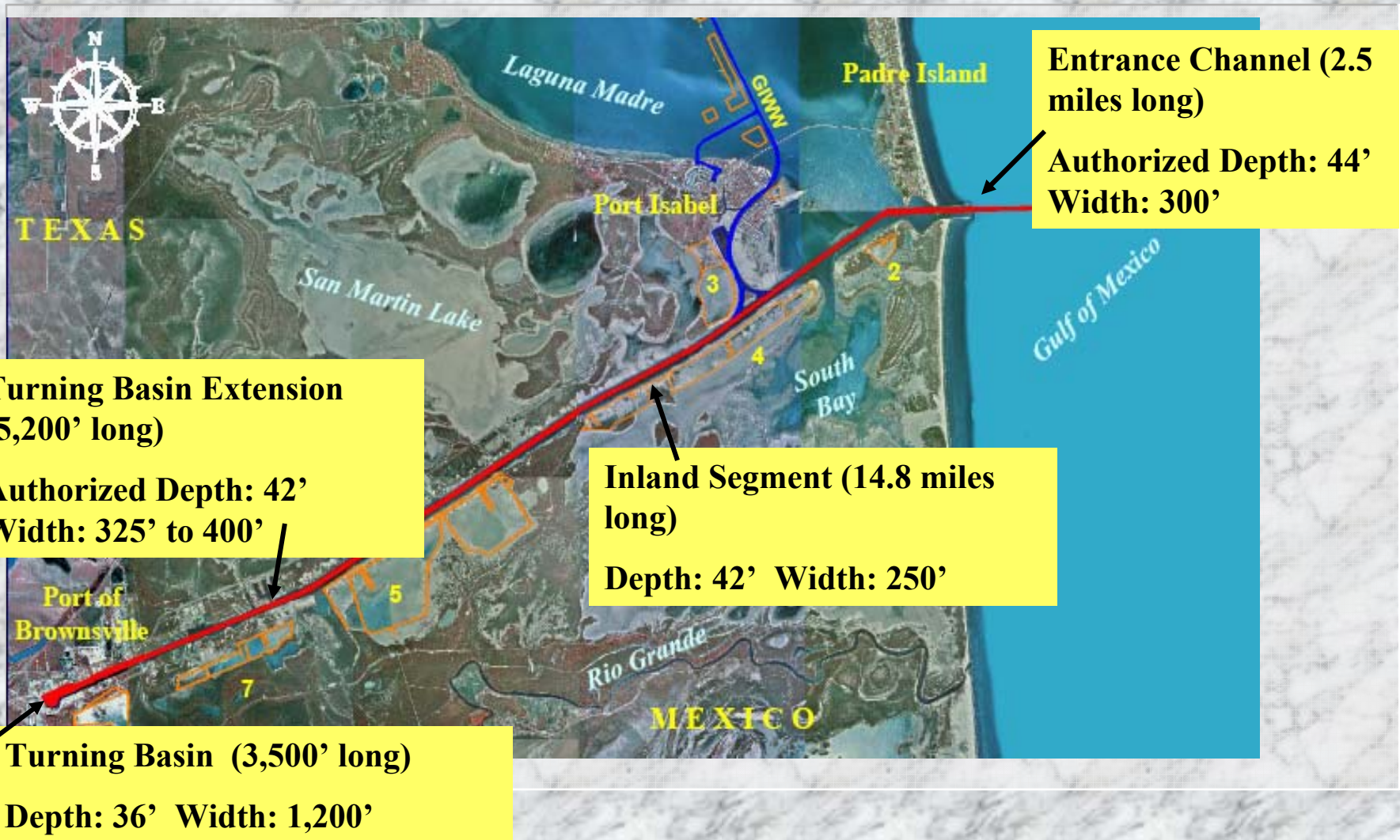


**Brownsville  
Navigation  
District**



**US Army Corps  
of Engineers  
Galveston District**

# Existing Channel System





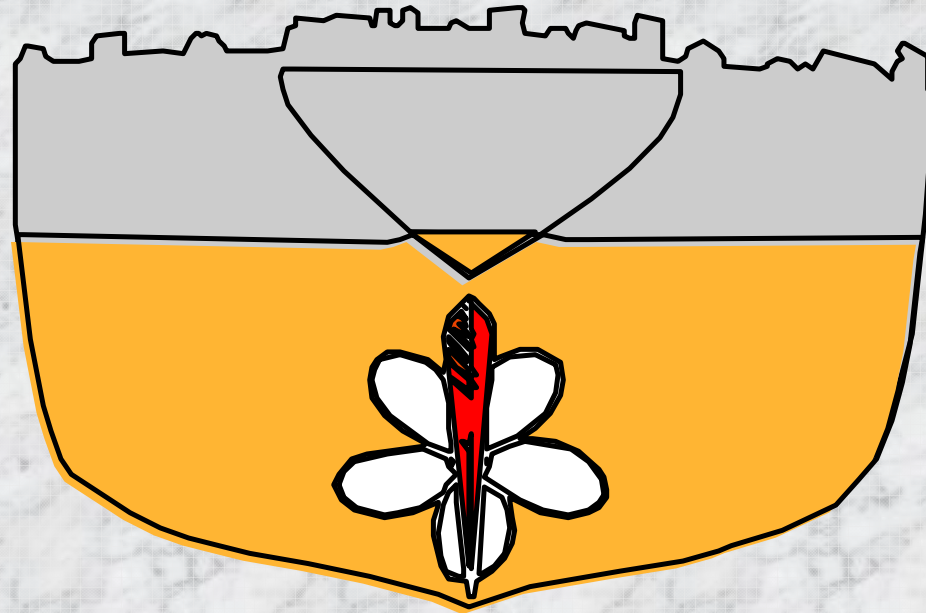
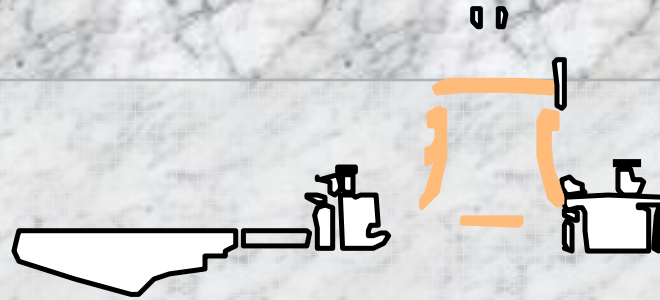


# History of Channel Deepening

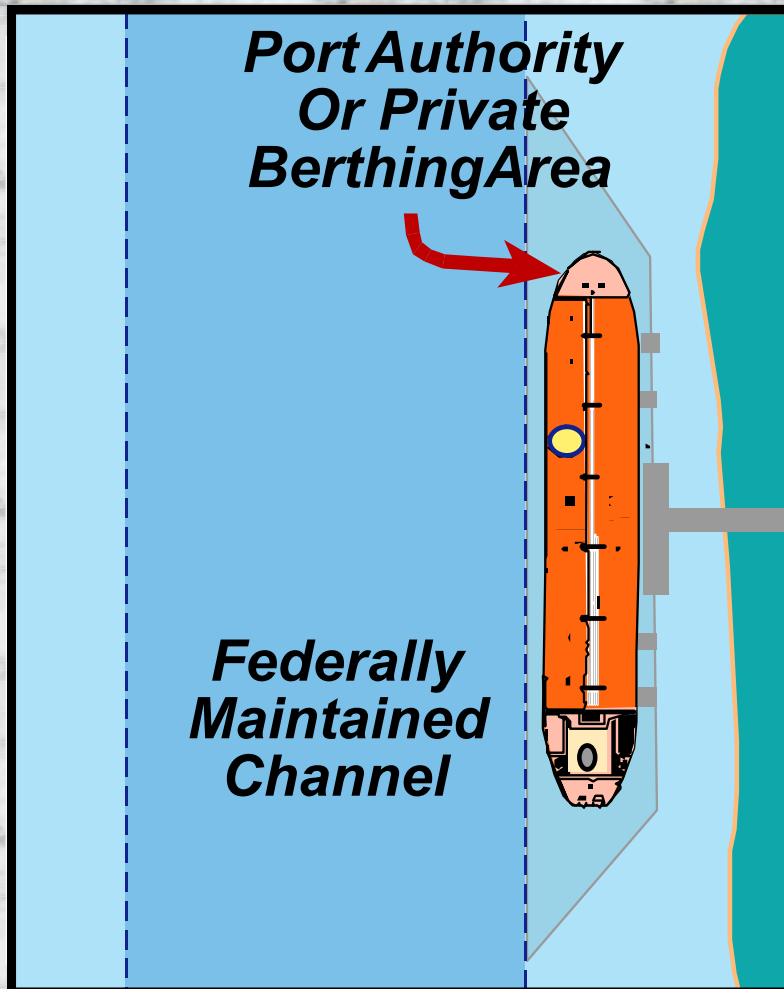
## Authorized Depths

1960 36 - foot

1986 42 - foot



# The Federal Channel



- ◆ Federal involvement started in Rivers & Harbors Act of 1880
- ◆ Channel authorized in
  - R&H Act of 1880 – 10 ft.
  - R&H Act of 1919 – 18 ft.
  - R&H Act of 1930, 1960 – 36 ft.
  - WRDA 1986 – 42 ft.
- ◆ Federal funds pay for channel maintenance
- ◆ Berthing areas not part of Federal channel



# Transportation Efficiency



- ◆ Some of the activities of the Brownsville Channel include:
  - ◆ Construction of offshore rigs
  - ◆ Ship repair/dismantling
  - ◆ Steel fabrication
  - ◆ Bulk terminal facilities
  - ◆ Steel / ore minerals offloading
- ◆ Larger ships would allow additional cargo to be brought into the Port

# Elements of Proposed Channel Improvement

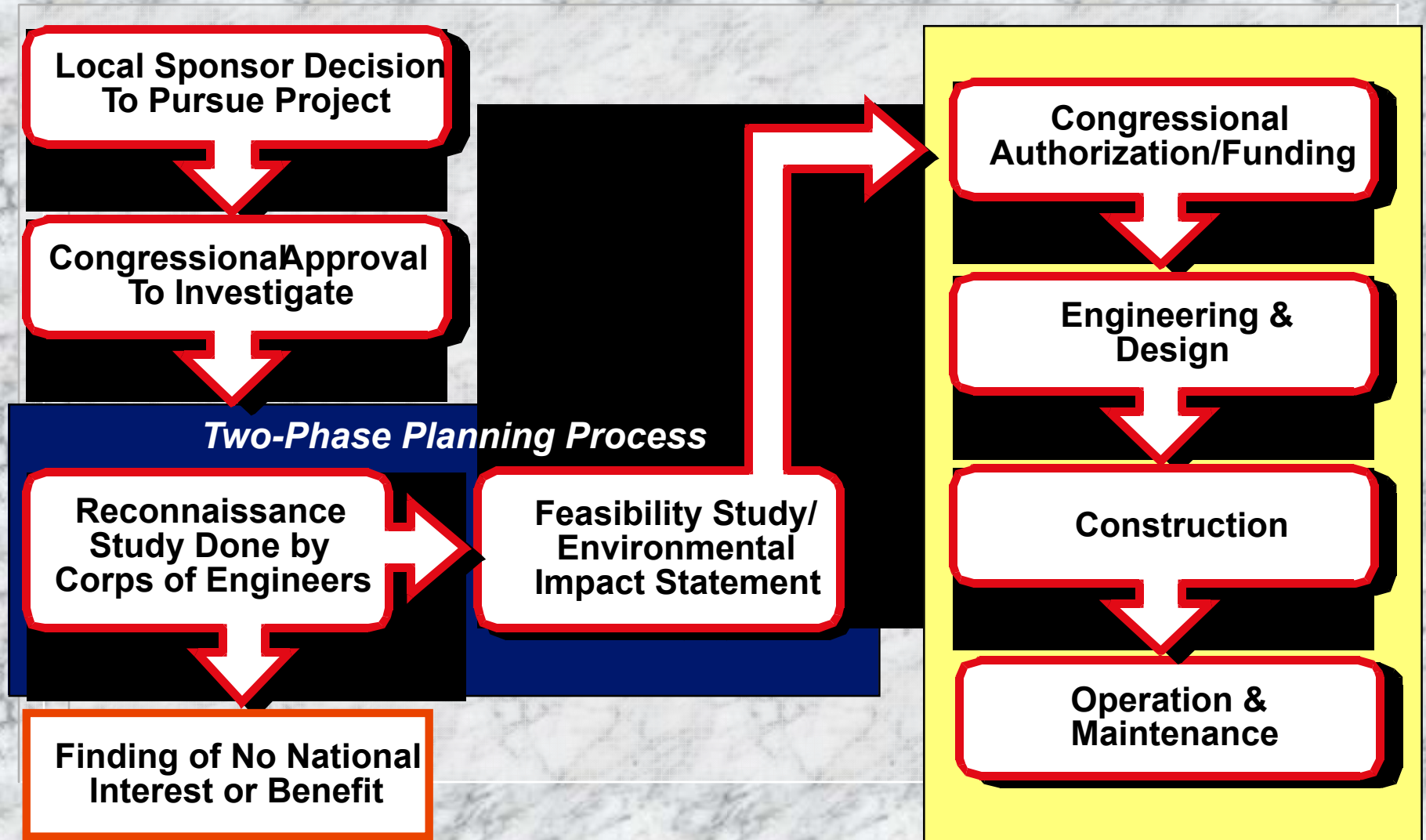
- **Deepening the channel from the Gulf of Mexico to the Port of Brownsville to improve transportation efficiency.**
- **Deepening to a proposed 48' depth would increase size of ships utilizing port, resulting in cost savings.**
- **Widening the channel would allow for larger oil rigs to be constructed/repared**



# Existing Dredge Material Placement Areas

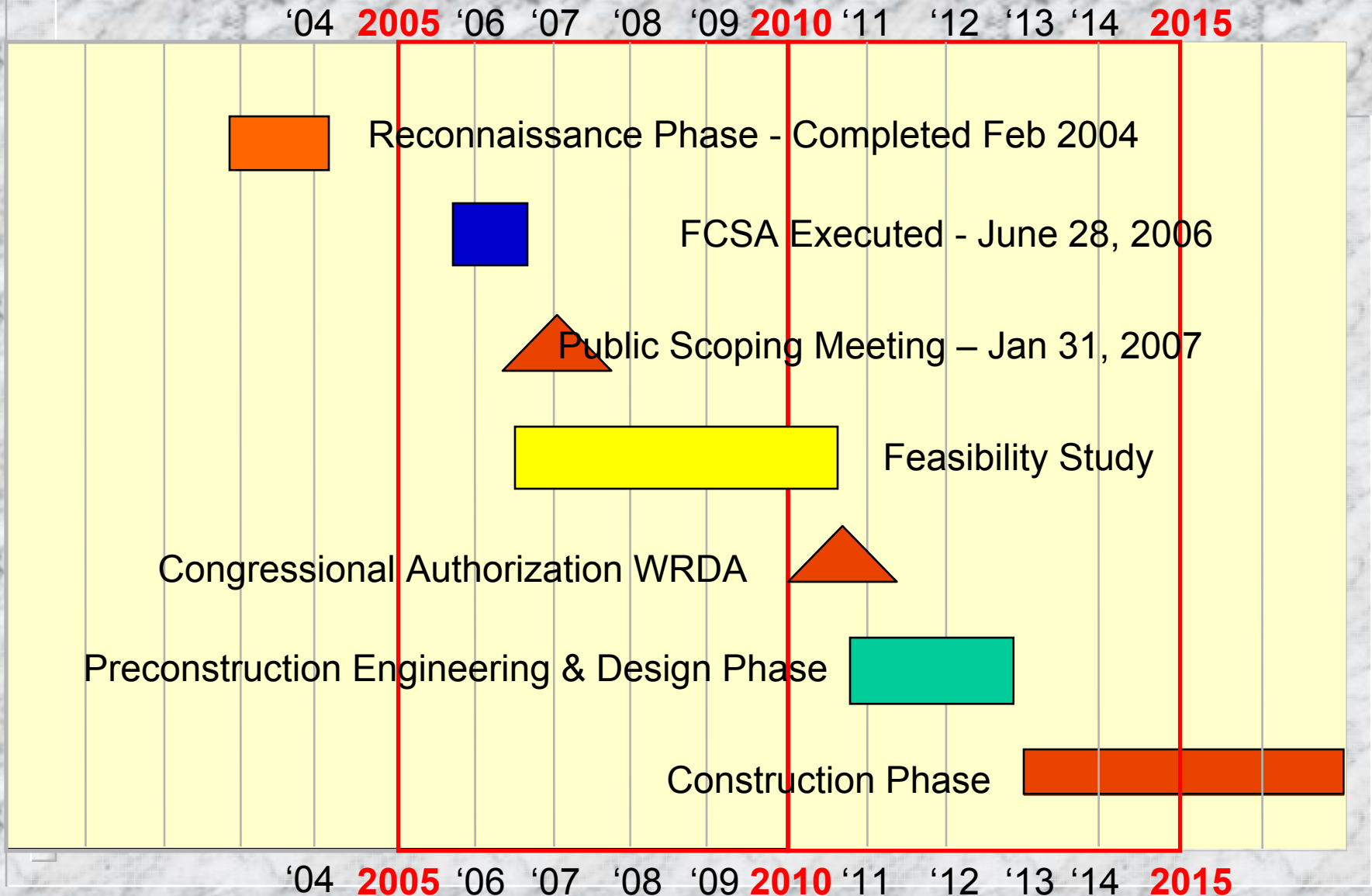


# Federal Civil Works Project Phases





# Project Timeline



# Results of Reconnaissance Phase

- ◆ Navigation, ecosystem restoration and shoreline erosion abatement are potentially economically feasible
- ◆ Is in the Federal interest to conduct more detailed investigation (feasibility study) of the project



# Feasibility Phase

- ◆ Develop and evaluate alternative plans to address problems and opportunities identified by Sponsor and Public
- ◆ Determine if there is an economically justified plan (Benefits to costs ratio  $>$  than 1)

# **Brazos Island Harbor Feasibility**

- ◆ Study will include preparation of Final Feasibility Report and Environmental Impact Statement (EIS)
- ◆ Estimated 48 months to complete
- ◆ Estimated cost of approximately \$6.8 million
- ◆ The Brownsville Navigation District and the Corps will equally share feasibility study costs



# Feasibility Study Steps

- ◆ **Specify** problems and opportunities (Sponsor, federal, state, and local concerns and public)
- ◆ **Forecast** and analyze conditions relevant to concerns
- ◆ **Formulate** alternative plans to resolve identified concerns
- ◆ **Evaluate** the economic, environmental, and other effects of each plan
- ◆ **Compare** alternative plans and their effects
- ◆ **Select** a recommended plan

# Issues and Concerns Categories

- ◆ Engineering
- ◆ Environmental
- ◆ Social and Economical



# Engineering Issues

- ◆ Channel design optimization
- ◆ Ship simulation study
- ◆ Dredging quantity estimates (C.Y. of new work material)
- ◆ Maintenance shoaling rates (C.Y. per year for 50 years)
- ◆ Berthing area requirements

# Engineering Issues

- ◆ Long-term dredge material management plan
- ◆ Geotechnical investigations for placement areas
- ◆ Real estate studies
- ◆ Utility relocations requirements



# Environmental Issues

- ◆ Hydrodynamic modeling
- ◆ Sediment quality
- ◆ Endangered species
- ◆ Marine resources
- ◆ Shoreline erosion
- ◆ Beneficial uses of dredged material
- ◆ Dust abatement

# **Social and Economic Issues**

- ◆ Overall economic impacts
- ◆ Projected impacts on commerce
- ◆ Cultural resources investigations
- ◆ Project affects on human quality of life



# **An Open Process**

- ◆ Identify stakeholders & urge participation
- ◆ Intensive state & federal resource agency involvement
- ◆ Establish working groups (as needed)

# Public Input

## Written Comments:

District Commander  
Galveston District  
P O Box 1229  
Galveston, TX 77553



**Brownsville  
Navigation  
District**

## Internet Comments:

[www.swg.usace.army.mil](http://www.swg.usace.army.mil)

Click on “Projects”  
Click on “Project Listings”  
Click on “Brazos Island Harbor”



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